

In the Claims

Claims 1 – 18 (Cancelled)

19. (New) A peptide molecule that interferes with an HLH domain of TAL-1 comprising at least 10 successive amino acids from the HLH domain of TAL-1 of sequence:

QQNVNGAFAELRKLIPTHTPPDKKLSKNEILRLAMKYINFLA (SEQ ID No. 1)

or an equivalent sequence.

20. (New) The peptide molecule according to claim 19, associated with a vector.

21. (New) The peptide molecule according to claim 20, wherein the vector is selected from the group consisting of:

a linear peptide derived from protegrins or tachyplesins,

a linear peptide comprising a domain of transduction of TAT protein of HIV-1 domains of transduction derived from the third helix of Antennapdia,

liposome particles, and

polyethylene glycol (PEG) polymers.

22. (New) The peptide molecule according to claim 20, wherein the vector is a linear peptide derived from Protegrins, complying with formula (I):

BX (X or B) BXXXXBBBXXXXXXB (I)

or a linear peptide derivative of Tachyplesin, complying with formula (II):

(B or X) XXXBXXXBXXXXBBXB (II),

in which:

identical or different B groups, representing an amino acid residue whose lateral chain bears an alkaline group, and

identical or different X groups, representing an aliphatic or aromatic amino acid residue or a fragment thereof consisting of a sequence of at least 5 successive amino acids of formulae (I) or (II).

23. (New) The peptide molecule according to claim 20, wherein a bond between the molecule and the vector is selected from the group consisting of a covalent bond, a hydrophobic bond, an ionic bond, a cleavable bond or a non-cleavable bond in the physiological media or inside the cells.

24. (New) The peptide molecule according to claim 23, wherein the bond may be either direct or indirect by a linker and carried out by a functional group that is naturally present or introduced either on the vector or on the inhibitor, or on both.

25. (New) The peptide molecule according to claim 19, comprising:

compound 4:

compound 4:



or

compound 5:



26. (New) The peptide molecule according to claim 19, comprising at least 15 successive acids from SEQ ID No. 1.

27. (New) A pharmaceutical composition comprising at least one peptide molecule as an active ingredient according to claim 19, and an acceptable vehicle.

28. (New) The pharmaceutical composition according to claim 27, adapted for parenteral, oral, rectal, nasal, transdermal, pulmonary or central administration.

29. (New) A method of preventing and/or treating diseases related to an angiogenesis, comprising administering a therapeutically effective amount of the pharmaceutical composition according to claim 27.

30. (New) The method according to claim 29, wherein the diseases are selected from the group consisting of cancer, arteriosclerosis and diabetes.

31. (New) A peptide molecule comprising a sequence selected from the group consisting of:

QQNVNGAFAELRKLIPTHTPPDKKLSKNEILRLAMKYINFLA (SEQ ID No. 1),

VRRIFTNSRERWRQQNVNGAFAELRKLI (SEQ ID No. 2),

PTHTPPDKKLSKNEILRLAMKYINFLA (SEQ ID No. 3)

and a sequence equivalent to the sequences.

32. (New) A pharmaceutical composition comprising at least one peptide molecule as an active ingredient according to claim 20, and an acceptable vehicle.

33. (New) A method of preventing and/or treating diseases related to an angiogenesis, comprising administering a therapeutically effective amount of the pharmaceutical composition according to claim 32.

34. (New) The method according to claim 33, wherein the diseases are selected from the group consisting of cancer, arteriosclerosis and diabetes.

35. (New) A method of identifying a biologically active compound likely to be used in prevention and/or treatment of diseases related to angiogenesis, comprising detecting inhibition of interaction between an HLH domain of TAL-1 and its partner E47 in the presence of the compound.

36. (New) The method according to claim 35, further comprising:

a) contacting protein TAL-1 or a fragment of the protein comprising the HLH domain, transcription factor E47 or a fragment of the factor comprising the HLH domain and the biologically active compound,

b) immunoprecipitating either 1) the HLH protein HLH or the fragment of the protein comprising the HLH domain or 2) transcription factor E47 or the fragment of the factor comprising the HLH domain,

c) if, at stage (b), the TAL-1 protein or the fragment of the protein comprising the HLH domain is immunoprecipitated, detecting in the immunoprecipitate obtained in stage (b), presence of a transcription factor E47 or the fragment of the factor comprising the HLH domain,

d) if, in stage (b), transcription factor E47 or the fragment of the factor comprising the HLH domain is immunoprecipitated, detecting in the immunoprecipitate obtained in stage (b), presence of protein TAL-1 or the fragment of the protein comprising the HLH domain,

wherein, when the transcription factor E47 or the fragment of the factor comprising the HLH domain is not present in stage (c) or when the protein TAL-1 or the fragment of the protein comprising the HLH domain is not present in stage (d), the compound is an agent likely to be used in the prevention and/or treatment of diseases related to angiogenesis.

37. (New) The method according to claim 35, characterized in that the method comprises the following stages:

(a') contacting TAL-1 protein or a fragment of the protein comprising the HLH domain, transcription factor E47 or a fragment of this factor comprising the domain that interacts with TAL-1 and the biologically active compound,

(b') causing the mixture obtained in stage (a') to migrate on a non-denaturant polyacrylamide gel,

(c') visualizing absence or presence of the TAL-1 complex or the fragment of the protein comprising the HLH domain and E47 or the fragment of the factor comprising the domain that interacts with TAL-1.